

PATENT COOPERATION TREATY

REC'D 23 MAR 2005

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From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/B2004/052902

International filing date (day/month/year)
22.12.2004

Priority date (day/month/year)
09.01.2004

International Patent Classification (IPC) or both national classification and IPC
H05B41/282

Applicant
PHILIPS INTELLECTUAL PROPERTY & STANDARDS GMBH

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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D-80298 Munich
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Authorized Officer

Morrish, I

Telephone No. +49 89 2399-7696



**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IB2004/052902

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
☐ a sequence listing
☐ table(s) related to the sequence listing
 - b. format of material:
☐ in written format
☐ in computer readable form
 - c. time of filing/furnishing:
☐ contained in the international application as filed.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/IB2004/052902

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	2,3,6,9,10
	No: Claims	1,4,5,7,8
Inventive step (IS)	Yes: Claims	6
	No: Claims	1-5,7-10
Industrial applicability (IA)	Yes: Claims	1-10
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. The following documents will be referenced in this communication:
D1: US2003/0107332
2. The subject-matter of independent claim 1 does not meet the requirements of Article 33(2) PCT as the claim is not new.

D1 discloses an electronic circuit topology for driving a predominantly capacitive load (fig 1, 880), where a pulsed electrical power supply is used, with a primary circuit with several components (fig 2 primary side components, 56,46, 24),

a secondary circuit with or connected to a predominantly capacitive load (fig 2; secondary side components 42,44 and 880), and
a transformer device (fig 2; transformer 18) with a primary side (fig 2; 20) and a secondary side (fig 2;222), connecting the primary circuit with the secondary circuit,

the primary circuit components comprise: -

a source device (fig 2, valley fill circuit, 830) supplying power via the transformer device for operating the predominantly capacitive load ,
a drain device (fig 2, diode 56, induction 46 and capacitor 850) for absorbing at least a part of said power, which is reflected back from the predominantly capacitive load during operation, and -
a switching device (fig 2, switch 24) for switching a current on the primary side,

the transformer device is of a transformer type with
a gap for transforming an input voltage-current-signal on the primary side to a suitable output voltage-current-signal for supplying the predominantly capacitive load on the secondary side (This is explicit from fig 2 and the description),

wherein

the source device is in serial connection with
the transformer device,
the drain device,

and the switching device (serial connection of these devices is shown in fig 2),

whereby the transformer device being connected to the predominantly capacitive load comprises means for functioning as a resonant tank circuit (fig 2; 42,44 and para 22), as a transformer device in forward mode (The first state, para 44), and as a transformer device in flyback mode (The second state, para 45), so that a single-ended forward-flyback circuit for driving predominantly capacitive loads with pulse-shaped wave forms is achieved (The output is a frequency AC waveform which is a string of pulse shapes placed together).

Thus the subject-matter of claim 1 is not new.

3. The dependent claims 2-5 and 7-10 do not appear to contain any additional features which, in combination with the independent claims meet the requirements of the PCT with respect to novelty and/or inventive step, the reasons being as follows:-

Claims 2 and 3: The precise form of the resonance circuit is not inventive, D1 shows an additional inductor and capacitor. Obviously either one, or both, of these devices may not be necessary. Their need depends on the transformer and the lamp characteristics.

Claim 4 and 5 are not new, see fig 2, winding 46 of transformer 18 and topology of circuitry about the transformer.

Claims 7 is not new (see control circuit 882)

Claim 8 is not new (diode 56 is parallel to switch 24)

Claim 9 and 10 are not inventive. The skill person would realise the advantages of D1 an use these with known light sources.

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